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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,513	12/09/2004	Jerome Tjia	SG02 0013 US	7123

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EXAMINER

PHAN, RAYMOND NGAN

ART UNIT PAPER NUMBER

2111

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/517,513	Applicant(s) TJIA ET AL.	
	Examiner Raymond Phan	Art Unit 2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12092004</u> . | 6) <input type="checkbox"/> Other: _____ |

Part III DETAILED ACTION

Notice to Applicant(s)

1. This application has been examined. Claims 1-21 are pending.
2. The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 2111.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

5. Claims 1-3, 5-10, 12-17, 19-21 are rejected under 35 U.S.C. § 102(e) as being anticipated by Chang et al. (US No. 6,775,733).

In regard to claims 1, 8, 15, Chang et al. disclose a bus system comprising a first station 104 and a second station 136 coupled by a bus (i.e. USB) for transferring signals (see figure 4, col. 3, lines 9-30), said bus being arranged to

operate according to a protocol in which said first station repeatedly sends requests for data to said second station, said protocol comprising a first mode (i.e. high or full speed) for transferring said requests in a first request format (i.e. EHCI 150 or OHCI 152) at a first communication speed (i.e. high or full speed) and at least a second mode (high or low) for transferring said requests in a second request format (i.e. EHCI or OHCI) at a second speed (i.e. high or low speed) (see figure 5), said second station being arranged to receive requests in a mode selected from a group of modes comprising said first and second modes, and being arranged to give a first indication to said first station if it is being arranged to operate according to said first mode (see col. 4, lines 15-36) and a second indication if it is being arranged to operate according to said second mode (see col. 4, lines 15-36), characterized in that said first station comprises a processor (142 or 146), a controller (152 or 150), and a translator 132, said processor being operable to generate request properties for requests in said first request format, said controller being operable to generate said requests in said first request format from said request properties, further being operable to transmit said request in said first format (i.e. USB2.0 or USB1.1) to said second station upon detection of said first indication (i.e. USB2.0 or USB1.1) and to forward said request to said translator upon detection of said second indication (i.e. USB2.0 or USB1.1), and said translator being operable to transmit said request in said second format (i.e. USB2.0 or USB1.1) to said second station (see figure 5, col. 4, lines 15-36).

In regard to claims 2, 9, 16, Chang et al. disclose wherein said bus system is a USB system (see figure 3, col. 1, lines 43-64).

In regard to claims 3, 10, 17, Chang et al. disclose wherein said request properties comprise mode information whereby said controller is operable to

determine from said mode information if said request is to be transmitted in said first or second format, respectively (see col. 4, lines 15-36).

In regard to claims 5, 12, 19, Chang et al. disclose in that said first station also comprises a router 160 for routing said requests transmitted in said first and second modes by said controller and said translator, respectively, to said bus (see figure 5, col. 4, lines 15-36).

In regard to claims 6, 13, 20, Chang et al. disclose in that said first mode is also conceived for transferring responses in a first response format at said first communication speed and said second mode is also conceived for transferring said responses in a second response format at said second speed, said second station is operable to transmit responses to said first station in a mode selected from a group of modes comprising said first and second modes, said translator is operable to receive said responses in said second response format and to forward said responses to said controller, said controller is operable to receive said responses in said first response format and to generate response properties from said responses in said first response format, and said processor is operable to handle said response properties generated by said controller (see col. 4, lines 15-36).

In regard to claims 7, 14, 21, Chang et al. disclose in that said first station also comprises a router 160 for routing said responses transmitted by said second station to said translator and to said controller, whereby said router is operable to route said responses to said controller upon detection of said first indication and to said translator upon detection of said second indication (see figure 5, col. 4, lines 15-36).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4, 11, 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Chang et al. in view of EHCI specification.

In regard to claims 4, 11, 18, Chang et al. disclose the claimed subject matter as discussed above rejection except the teaching of wherein said second station is assigned an address, said request properties comprise address information whereby said controller is operable to determine from said address information if said request is to be transmitted in said first or second format, respectively. However the EHCI specification disclose the request properties comprising address information (see para 48 of the present application). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of EHCI specification within the system of Chang et al. because it would provide an improved routing technique for the port routing logic of Chang et al.

Conclusion

8. All claims are rejected.

9. The prior arts made of record and not relied upon are considered pertinent to applicant's disclosure.

Govindaraman (US No. 6,901,471) discloses a transceiver macrocell architecture allowing upstream and downstream operation.

Novell et al. (US No. 7,000,057) disclose a method and apparatus for adding OTG dual role device capability to a USB peripheral.

Hesse et al. (US No. 6,990,550) disclose a transaction duration management in a USB host controller.

Chiang et al. (US No. 6,874,055) disclose an USB control circuit with automatic route-switching function.

Leete (US No. 6,721,815) discloses a method and apparatus for ITD scheduling.

Gulick et al. (US Pub No. 2004/0024920) disclose a serial bus host controller diagnosis.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Raymond Phan, whose telephone number is (571) 272-3630. The examiner can normally be reached on Monday-Friday from 6:30AM- 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079 or via e-mail addressed to john.cottingham@uspto.gov. The fax phone number for this Group is (571) 273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [raymond.phan@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 central telephone number is (571) 272-2100.



Raymond Phan
June 15, 2006

MARK H. RINEHART
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

